

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. – 19. (cancelled)

20. (original) A method of localizing a medical device in a patient's body during a medical procedure, the method comprising:

securing a reference catheter near the procedure site in the patients' body;

introducing the medical device into the patient's body;

transmitting signals comprising at least two frequencies between the device and the reference catheter and processing the signals to determine the position of the device relative to the reference catheter.

21. (original) The method according to claim 20 the signals are transmitted by the reference catheter and received by the device.

22. (original) The method according to claim 20 wherein the signals are transmitted by the device and received by the reference catheter.

23. (original) The method according to claim 20 wherein signals are both transmitted and received by the reference catheter and the instrument.

24. (original) A method of localizing a medical device at a procedure site in the body, comprising:

securing a reference catheter near the procedure side in the patient's body;

transmitting signals comprising at least two frequencies between the reference catheter and at least one reference device of known position in an external frame of reference outside the body to determine the position of the reference catheter with respect to the external frame of reference;

introducing the medical device into the patient's body;

transmitting signals between the medical device and the reference catheter and processing the signals to determine the position of the device relative to the reference catheter;

determining the position of the medical device relative to the external reference frame.

25. (original) The method according to claim 24 wherein the signals are transmitted by the reference catheter and received by the reference device.

26. (original) The method according to claim 24 wherein the signals are transmitted by the reference device and received by the reference catheter.

27. (original) The method according to claim 24 wherein signals are both transmitted and received by the reference catheter and the reference device.

28. (original) The method according to claim 24 wherein signals are transmitted by the reference catheter to the medical device.

29. (original) The method according to claim 24 wherein signals are transmitted by the medical device to the reference catheter.

30. (original) The method according to claim 24 wherein at least some of the signals transmitted between the reference catheter and the medical device comprise at least two frequencies.

31. (original) The method according to claim 24 wherein signals are transmitted from the at least one reference device to the reference catheter, and wherein signals are transmitted from the medical device to the reference catheter.

32. (original) The method according to claim 24 wherein signals are transmitted from the reference catheter to the at least one reference device, and wherein the signals are transmitted from the reference catheter to the medical device.

33. (original) The method according to claim 24 wherein signals are transmitted from the at least one reference device to the reference catheter, and wherein the signals are transmitted from the reference catheter to the medical device.

34. (original) The method according to claim 21 wherein signals are transmitted from the reference catheter to the at least one reference device, and wherein the signals are transmitted from the from the medical device to the reference catheter.

35. (original) A method of visualizing a medical device during a medical procedure in a patient's body, the method comprising:
securing a reference catheter near the procedure site in the patients' body;
making a pre-procedure image of the procedure site including the reference catheter;
introducing the medical device into the patient's body;
transmitting signals between the instrument and the reference catheter and processing the signals to determine the position of the instrument relative to the reference catheter;
displaying the pre-procedure image with an image of the medical device superposed thereon based on the determined position of the medical device to the reference catheter.

36. (original) The method according to claim 35 wherein the signals transmitted are at least one of ultrasonic, ac magnetic or dc magnetic.

37. (original) The method according to claim 35 wherein the signals are transmitted by the reference catheter and received by the medical device.

38. (original) The method according to claim 35 wherein the signals are transmitted by the medical device and received by the reference catheter.

39. (original) The method according to claim 35 wherein signals are both transmitted and received by the reference catheter and the medical device.

40. (original) A method of localizing a medical device at a procedure site in the body, comprising:
securing a reference catheter near the procedure side in the patient's body;
transmitting signals between the reference catheter and at least one reference device of know position in an external frame of reference outside the body to determine the position of the reference catheter with respect to the frame of reference;

introducing a medical device into the patient's body;

transmitting signals between the medical device and the reference catheter and
processing the signals to determine the position of the medical device relative to the
reference catheter;

determining the position of the medical device relative to the external reference frame.

41. (original) The method according to claim 40 wherein the signals
transmitted are at least one of ultrasonic, ac magnetic or dc magnetic.

42. (original) The method according to claim 40 wherein the signals are
transmitted by the reference catheter and received by the medical device.

43. (original) The method according to claim 40 wherein the signals are
transmitted by the medical device and received by the reference catheter.

44. (original) The method according to claim 40 wherein signals are both
transmitted and received by the reference catheter and the medical device.

45. (original) The method according to claim 40 wherein signals are
transmitted from the at least one reference device to the reference catheter, and
wherein the signals are transmitted from the medical device to the reference catheter.

46. (original) The method according to claim 40 wherein signals are
transmitted from the reference catheter to the at least one reference device, and
wherein the signals are transmitted from the medical device to the reference catheter.

47. (original) The method according to claim 40 wherein signals are
transmitted from the at least one reference device to the reference catheter, and
wherein the signals are transmitted from the reference catheter to the medical device.

48. (original) The method according to claim 40 wherein signals are
transmitted from the reference catheter to the at least one reference device, and
wherein the signals are transmitted from the reference catheter to the medical device.